

JENKINS
WILSON
TAYLOR
& HUNT

patent attorneys



August 22, 2007

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 22, 2007.

Oksana Buynitzky

RICHARD E. JENKINS

JEFFREY L. WILSON

ARLES A. TAYLOR, JR.

GREGORY A. HUNT

BENTLEY J. OLIVE

*CHRIS PERKINS, PH.D.

DAVID M. SIGMON

WESLEY A. SHEFFIELD

SCOTT C. MAYHEW

*KIRBY A. TURNER

BENJAMIN J. AIKEN

PATENT AGENTS

JAY KLINCK

AMY ODENBAUGH, PH.D.

LAURA L. KIEFER, PH.D.

TECHNICAL SPECIALIST

LEON R. LEGLEITER, PH.D.

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: U.S. Patent Application Serial No. 10/589,222 for
FUNCTIONAL MATERIALS AND NOVEL METHODS FOR THE
FABRICATION OF MICROFLUIDIC DEVICES
Our Ref. No. 421/96 PCT/US

Sir:

Please find enclosed in connection with the subject U.S. patent application the following documents:

1. Information Disclosure Statement (2 pages);
2. Form PTO-1449 (6 pages);
3. Copies of cited references (29 references); and
4. A return-receipt postcard to be returned to us with the U.S. Patent and Trademark Office filing stamp thereon.

Although no fee is believed to be due, the Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

Arles A. Taylor, Jr.
Registration No. 39,395

AAT/omb

Enclosures

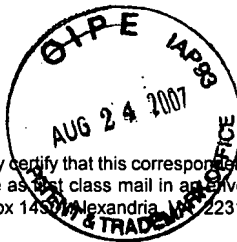
Customer No. 25297

tel 919.493.8000
fax 919.419.0383

Jenkins, Wilson, Taylor & Hunt, P.A.
JenkinsWilson.com

University Tower, Suite 1200 | 3100 Tower Boulevard | Durham, North Carolina 27707

1FW



I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 22, 2007.

PATENT

Oksana Buynitzky

Date of Signature August 22, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: DeSimone et al.

Group Art Unit: Unknown

Serial No.: 10/589,222

Examiner: Unknown

Filed: August 14, 2006

Docket No.: 421/96
PCT/US

For: FUNCTIONAL MATERIALS AND NOVEL METHODS FOR THE
FABRICATION OF MICROFLUIDIC DEVICES

INFORMATION DISCLOSURE STATEMENT

(Before the Later of a First Office Action or 3 Months from Filing Date)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. 1.56, 1.97, and 1.98, applicants' undersigned attorney brings to the attention of the Patent and Trademark Office the documents listed on the attached form PTO-1449. Pursuant to 37 C.F.R. § 1.98(a)(2)(i), copies of the U.S. patents and U.S. patent application publication references cited on the attached Form PTO-1449 are not attached. However, copies can be provided if necessary. Copies of the references AA-BC as well as Form PTO-1449 are attached

Appln. No.: 10/589,222

hereto. This is not to be construed as a representation that a search has been made or that a reference is relevant merely because cited.

Early passage of the subject application to issue is earnestly solicited.

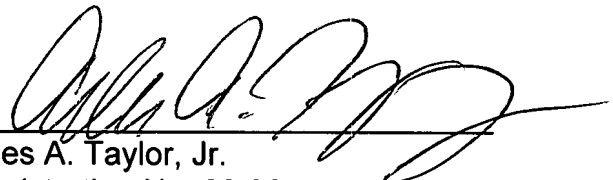
Although it is believed that no fee is due, the Commissioner is hereby authorized to charge any fees associated with the filing of this Information Disclosure Statement to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

Date: August 22, 2007

By:


Arles A. Taylor, Jr.
Registration No. 39,395

AAT/omb

Enclosures

Customer No. 25297



FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 421/96 PCT/US	Serial No. 10/589,222
List of Documents Cited by Applicant	Applicant(s): DeSimone et al.	
	Filing Date: August 14, 2006	Group: Unknown

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if Appropriate
	A	US 5,593,130	1-14-1997		251	061.100	03-06-1996
	B	US 6,015,609	1-18-2000	Hassan Chaouk	428	308.400	05-10-1999
	C	US 6,183,829	2-06-2001	Jeffrey Lawrence Daecher	428	064.100	11-02-1998
	D	US 6,280,808	8-28-2001	Steven David Fields	428	064.100	05-25-1999
	E	US 6,335,224	1-01-2002	Kenneth Peterson	438	114	05-16-2000
	F	US 6,408,878	06-25-2002	Marc Unger	137	597	02-28-2001
	G	US 6,451,403	09-17-2002	Jeffrey Daecher	428	064.100	11-27-2000
	H	US 6,508,988	01-21-2003	R. Van Dam	422	102	10-03-2000
	I	US 6,686,184	02-03-2004	Janelle Anderson	435	174	05-25-2000
	J	US 6,705,357	03-16-2004	Noo Jeon	141	009	09-18-2001
	K	US 6,719,868	04-13-2004	Olivier Schueller	156	272.600	10-22-1999

EXAMINER _____ DATE CONSIDERED _____

*Examiner Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket No. 421/96 PCT/US			Serial No. 10/589,222	
List of Documents Cited by Applicant								
				Applicant(s): DeSimone et al.				
				Filing Date: August 14, 2006			Group: Unknown	
	L	US 6,767,706	07-27-2004	Stephen Quake	435	006	06-05-2001	
	M	US 6,793,753	09-21-2004	Marc Unger	156	155	02-28-2001	
	N	US 6,841,079	01-11-2005	Timothy Dunbar	216	002	05-31-2002	
	O	US 6,844,623	01-18-2005	Kenneth Peterson	257	723	09-18-2001	
	P	US 6,929,030	08-16-2005	Marc Unger	137	883	11-28-2001	
	Q	US 6,956,283	10-18-2005	Kenneth Peterson	438	114	06-26-2003	
	R	US 7,040,338	05-09-2006	Marc Unger	251	129.010	02-28-2001	
	S	US2004/0084402	05-06-2004	James Ashmead	204	601	03-13-2003	
	T	US2005/0048581	03-03-2005	Daniel Chiu	435	007.200	08-25-2004	
	U	US2005/0266582	12-01-2005	Douglas Modlin	209	552	04-14-2005	
	V	US2006/0009805	01-12-2006	Ralph Jensen	607	054	04-26-2005	
	W	US2006/0021533	02-02-2006	Albert Jeans	101	327	07-30-2004	
	X	US2006/0022131	02-02-2006	Hiromasa Tojo	250	288	09-02-2005	
	Y	US2006/0077221	04-13-2006	Karthik Vaideeswaran	347	020	11-17-2005	
	Z	US2007/0012891	01-18-2007	George Maltezos	264		12-07-2005	

EXAMINER _____ DATE CONSIDERED _____

*Examiner Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket No. 421/96 PCT/US		Serial No. 10/589,222	
List of Documents Cited by Applicant							
				Applicant(s): DeSimone et al.			
				Filing Date: August 14, 2006		Group: Unknown	
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Name of Patentee or Applicant	Translation Yes No	
	AA	WO1991/016966	11/14/1991	WIPO	Pharmacia Biosensor AB		
	AB	WO1998/007069	02/19/1998	WIPO	The Regents of the University of Michigan		
	AC	WO2002/029397	4/11/2002	WIPO	E.I. Dupont de Nemours and Company		
	AD	WO2002/053290	07/11/2002	WIPO	President and Fellows of Harvard College		
	AE	WO2002/093125	11/21/2002	WIPO	President and Fellows of Harvard College		
	AF	WO2003/011443	02/13/2003	WIPO	President and Fellows of Harvard College		
	AG	WO2003/015890	02/27/2003	WIPO	President and Fellows of Harvard College		
	AH	WO2003/101888	12/11/2003	WIPO	3M Innovative Properties Company		
	AI	WO2004/002627	01/08/2004	WIPO	President and Fellows of Harvard College		
	AJ	WO2004/022233	03/18/2004	WIPO	Epigem Limited		

EXAMINER _____ DATE CONSIDERED _____

*Examiner Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket No. 421/96 PCT/US		Serial No. 10/589,222	
List of Documents Cited by Applicant							
				Applicant(s): DeSimone et al.			
				Filing Date: August 14, 2006		Group: Unknown	
	AK	WO2004/074818	09/02/2004	WIPO	Biotrove, Inc.		
	AL	WO2004/079364	09/16/2004	WIPO	Tojo, Hiromasa		
	AM	WO2004/084402	09/30/2004	WIPO	Aktiebolaget SKF		
	AN	WO2005/028108	03/31/2004	WIPO	Eksigent Technologies, LLC		
	AO	WO2005/046997	05/26/2005	WIPO	Lexmark International, Inc.		
	AP	WO2005/060748	07/07/2005	WIPO	Valent Biosciences Corporation		
	AQ	WO2006/071470	07/06/2006	WIPO	California Institute of Technology; Fluidigm Corporation; The Regents of the University of California; Siemens Corporation		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Quake et al. <i>From micro- to nanofabrication with soft materials.</i> <i>Science</i> , Vol. 290, (2000), pp. 1536-1540					
	AS	Becker et al. <i>Polymer microfabrication methods for microfluidic analytical applications.</i> <i>Electrophoresis</i> , Vol. 21, (2000), pp.12-26					

EXAMINER _____ DATE CONSIDERED _____

*Examiner Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office		Attorney Docket No. 421/96 PCT/US	Serial No. 10/589,222
List of Documents Cited by Applicant			
		Applicant(s): DeSimone et al.	
		Filing Date: August 14, 2006	Group: Unknown
	AT	Unger et al. <i>Monolithic microfabricated vavles and pumps by multilayer soft lithography.</i> <i>Science</i> , Vol. 288, (2000), pp.113-116	
	AU	McDonald et al. <i>Poly(dimethylsoloxane) as a material for fabricating microfluidic devices.</i> <i>Accounts of Chemical Research</i> , Vol. 35, no. 7, (2002), pp. 491-499	
	AV	Hansen et al. <i>Microfluidics in structural biology: smaller, faster... better.</i> <i>Current Opinion in Structural Biology</i> , Vol. 13, (2003), pp. 538-544	
	AW	Xia et al. <i>Soft lithography.</i> <i>Angewandte Chemie International Edition</i> , Vol. 37, (1998), pp. 550-575	
	AX	Dittrich et al. <i>Lab-on-a-chip: microfluidics in drug discovery.</i> <i>Nature</i> , Vol. 5, (2006), pp. 210-218	
	AY	Duffy et al. <i>Rapid prototyping of microfluidic systems in poly(dimethylsiloxane).</i> <i>Analytical Chemistry</i> , Vol. 70, (1998), pp. 4974-4984	
	AZ	Thorsen et al. <i>Microfuidic large-scale integration.</i> <i>Science</i> , Vol. 298, (2002), pp. 580-584	
	BA	Lee et al. <i>Solvent compatibility of poly(dimethylsiloxane)-based microfluidic devices.</i> <i>Analytical Chemistry</i> , Vol. 75, no. 23, (2003), pp. 6544-6554	

EXAMINER _____ DATE CONSIDERED _____

*ExaminerInitial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office		Attorney Docket No. 421/96 PCT/US	Serial No. 10/589,222
List of Documents Cited by Applicant			
		Applicant(s): DeSimone et al.	
		Filing Date: August 14, 2006	Group: Unknown
	BB	Gu et al. <i>Computerized microfluidic cell culture using elastomeric channels and Braille displays.</i> <i>Proceedings of the National Academy of Sciences of USA</i> , Vol. 101, no. 45, (2004), pp. 15861-15866	
	BC	Rolland et al. <i>Solvent-resistant photocurable "liquid teflon" for microfluidic device fabrication.</i> <i>Journal of American Chemical Society</i> , Vol. 126, no. 8, (2004), pp. 2322-2323	

EXAMINER _____ DATE CONSIDERED _____

*Examiner Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.